In the Claims:

1. (Currently Amended) A method of assembling a coated medical implant delivery system, ~~providing a medical implant delivery system in order to reduce damage to an internally coated medical implant of the delivery system during the expansion of the medical implant,~~ the method comprising:

providing an internally coated medical implant having an inner surface and an outer surface, the inner surface of the implant at least partially coated with a coating;

~~selecting the number of folds of a multi-wing balloon to reduce the deformation of the internal coating of the medical implant when the medical implant is expanded by the folds of the balloon, wherein the number of folds is selected using an inverse relationship between the inner coating hardness and the number of folds, wherein less folds are selected for harder coatings and more folds are selected for softer coatings; and~~

providing a balloon catheter having a multi-wing balloon, the multi-wing balloon having ~~the previously selected~~ a plurality ~~number~~ of expandable folds;

providing an elastic membrane sized to surround the expandable folds of the multi-wing balloon, the elastic membrane having a coating on an inside surface and on an outside surface;

positioning the elastic membrane around the expandable folds of the multi-wing balloon; and

positioning the medical implant around the elastic membrane after the elastic membrane has been positioned around the multi-wing balloon.

2. (Currently Amended) The method of claim 1 further comprising:

crimping the coated medical implant around the elastic membrane and onto the multi-wing balloon.

3. (Currently Amended) The method of claim 1 further comprising:

treating a surface of the folds of the multi-wing balloon to reduce friction. ~~2 further comprising:~~

~~encircling the multi-wing balloon with a removable elastic membrane before crimping the coated medical implant onto the multi-wing balloon~~.

4. (Currently Amended) The method of claim 3 wherein treating a surface of the folds of the multi-wing balloon to reduce friction includes polishing the balloon ~~1 selecting the number of folds in the multi-wing balloon includes considering the number of cells in the coated medical implant.~~

5. (Currently Amended) The method of claim 3 wherein treating a surface of the folds of the multi-wing balloon to reduce friction includes heating the balloon. ~~1 wherein the number of folds selected is also selected such that during expansion of the coated medical implant the internal surface coating remains substantially intact after the medical implant has been expanded~~.

6. (Canceled)

7. (Previously Presented) The method of claim 1 wherein the multi-wing balloon expands in a sweeping spiral fashion.

8. (Currently Amended) The method of claim 1 wherein the elastic membrane comprises a latex. ~~3 further comprising treating the removable elastic membrane to reduce the adhesion between the membrane and the coating on the coated medical implant.~~

9 - 13. (Canceled)

14. (Currently Amended) The method of claim 1 wherein the coating of the medical implant includes a bio-compatible polymer and a therapeutic agent.

15-18. (Canceled)

19. (Currently Amended) The method of claim 3 ~~claim 8~~ wherein the treatment includes coating the elastic membrane and wherein the implant is a stent.

20 - 22. (Canceled)